IMPACT FEES AS A MEANS OF FUNDING THE CONSTRUCTION OF FIRE/RESCUE STATIONS IN FREDERICK COUNTY, MARYLAND

Executive Leadership

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ABSTRACT

While Frederick County has had plans for many years to build additional fire/rescue stations to serve its rapidly growing population, no new stations have been built, in part because of difficulties with identifying a funding source. The purpose of this paper was to investigate the feasibility of using impact fees for the construction of new fire/rescue stations in Frederick County.

The research method was evaluative, and the following questions were addressed:

1. How are impact fees currently used in Frederick County and beyond?

2. What are the needs and plans for fire and rescue facilities in Frederick County?

3. How might impact fees be applied to fund the construction of new fire and rescue stations in Frederick County?

Data was gathered from the Frederick County Department of Planning and Zoning, and a process was developed to determine the fire/rescue impact fee based on the data.

Impact fees were found to be common throughout the United States. However, in Maryland only one County currently uses impact fees for fire/rescue. Frederick County has identified in its comprehensive plan the short-term need for at least four additional fire/rescue stations, and three station sites have been dedicated through the development review process. However, an architect has only just been hired for the first station. Based on a formula, fire/rescue impact fees ranging from $273 to $417 for residential occupancies and $40 to $520 per 1,000 sq ft for nonresidential occupancies were proposed.

Recommendations included adopting impact fees to defray the cost of constructing additional fire/rescue stations and providing the necessary apparatus. It was also recommended that Frederick

County monitor all aspects of emergency response times and develop an incremental methodology for impact fees to assure that adequate levels of service are maintained in the future.

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INTRODUCTION

For many years, Frederick County has had plans to add new fire/rescue stations as its population grows. Yet, the County has encountered a problem actually building new stations, in part because of difficulties with identifying a funding source. The purpose of this paper was to investigate the feasibility of using impact fees for the construction of new fire stations in Frederick County.

The research method was evaluative. Frederick County's existing impact fee ordinance, along with ordinances of selected other jurisdictions, were reviewed. Major residential and nonresidential development in Frederick County was projected for the new fire/rescue stations, and fire/rescue capital replacement costs were quantified. Based on this data, fire/rescue levels of service were determined to calculate the fire/rescue impact fee. Revenue to be generated from a fire/rescue impact fee was then estimated and compared with the costs of the capital improvements program.

The following questions were addressed:

1. How are impact fees currently used in Frederick County and beyond?

2. What are the needs and plans for fire and rescue facilities in Frederick County?

3. How might impact fees be applied to fund the construction of new fire and rescue stations in Frederick County?

BACKGROUND AND SIGNIFICANCE

As one of the "outer suburbs" of the Baltimore/Washington metropolitan area, Frederick County has experienced rapid population growth which has significantly increased the demand for fire/rescue services. The population from 1990 to present has increased by 26 percent to 195,603, making Frederick County one of the fastest growing jurisdictions in the metropolitan region. During the

same period, the number of fire/rescue incidents has increased from 13,774 in 1990 to 18,689 in 1998, a 36 percent increase. The population is projected to reach 238,000 by 2010.

Frederick County is also geographically the largest County in Maryland with 663 square miles. The last additional fire/rescue station built was in 1985 when the County's population was about 130,000. Since that time, the population has increased by 66,000, and the *Frederick County Comprehensive Plan* (1998) has recommended at least four additional stations. While none has been built, the County has finally funded the design of a new fire/rescue station for the most populated area south of the City of Frederick. Meanwhile, debates continue about the proper source of funding for new fire/rescue stations.

This topic is particularly timely since the Board of County Commissioners has agreed to update Frederick County's existing *Impact Fee Ordinance* with a study to include fire/rescue capital costs. Concurrently, a Fire/Rescue Task Force Review Committee is considering, among other items, funding for fire/rescue services. At a meeting on April 21, 1999, one of Frederick County's Commissioners raised the possibility of expanding the County's existing *Impact Fee Ordinance* to include funding for the construction of fire/rescue stations. Capital costs would need to be associated with dwelling units and/or square footage to generate impact fees, and this had not been quantified for fire/rescue. It was agreed at the meeting that a proposal for the use of fire/rescue fees be included in the Task Force Review Report to be issued this fall.

Planning for a new funding mechanism relates to Unit 2 "The Management Process" of the Executive Leadership course (National Fire Academy, March 1996). The unit describes the Kast and Rosenswieg Systems Model, and funding issues for capital improvements are particularly a function of

the managerial and technical subsystems of the Model.

LITERATURE REVIEW

Governments have various funding sources for their operations and capital expenses including bonds, special districts, developer exactions, excise taxes, property and sales taxes, transfer taxes, and user charges. Impact fees, a form of developer financing, are another funding source that are becoming more common, particularly in rapidly growing areas.

> The primary reason that local officials are looking to private developers for money for capital spending is that the traditional financing mechanisms--locally raised revenues, general obligation bonds repaid by local government taxes, and state and federal grants--are not as available as in previous decades. (Carlisle & Valente, 1988, p. 1)

Impact fees represent an alternative funding mechanism for governments to provide missing infrastructure. "The impact fee originated in states and communities experiencing relatively rapid growth because such growth requires rapid provision of additional capital facilities to a larger population" (Nicholas, 1988, p. 1). In fact, Davis (1993) states that "innovative revenue sources *must* be a priority for (fire) departments as we move toward the 21st century" (p. 34).

In a 1991 *Infrastructure Financing Survey* of U.S. local governments conducted by the International City Management Association (ICMA), impact fees were most commonly used in the states along the west coast (81.8 percent), followed by states in the Rocky Mountain region just to the east from Montana to the north and Arizona and New Mexico to the south (65.5 percent). The third most common use of impact fees was shown to be in the states along the east coast from Maryland to the north and Florida to the south (42.6 percent), followed closely behind by Pennsylvania, New York,

and New Jersey (42.5 percent). Impact fees were least common in the southern states of Kentucky, Tennessee, Alabama, and Mississippi (20.8) percent. By metro status, impact fees were most commonly used by suburban jurisdictions (Hoxworth, 1991).

Impact fees may be defined in various ways, but have two essential features:

> (1) they shift the cost of capital improvements from all users or taxpayers in the jurisdiction to the new residents who create the need for them, and (2) they are collected before the improvements are constructed rather than after they are in service. (Tiburzi, 1988, p. 502)

Tischler (1999) defines them as "one-time cash payments required of developers to pay for the new development's fair share of capital facilities" (p. 13). Nicholas (1988) defines impact fees in a bit more detail as "a monetary charge imposed by local government on new development to recoup or offset a proportionate share of public capital costs required to accommodate such development with public facilities" (p. 1). Similarly, Hoxworth (1991) defines them as " charges to developers for off-site capital improvements that must be provided by a local government to serve new development. They are levied in proportion to the benefit to be received from the improvements" (p. 1). Fire impact fees, specifically, are defined by Downing, Frank and Lines (1985) as "charges to developers at the time of development for construction of fire protection facilities to serve the development site" (p. 5).

Impact fees may be further defined and understood by considering not only what they are, but what they are not. They are not property taxes, which Maryland courts have defined as "a charge on the owner of property by reason of his ownership alone without regard to any use that might be made of it" (Tiburzi, 1990, p. 4). They are distinct from impact taxes,

> which are based on the government's power of taxation and do not need to be proportionate

> either to the benefits received by the developer or to the cost of the public improvements to be provided. Indeed, impact taxes, unlike impact fees, may be used to cover operating costs." (Hoxworth, 1991, p. 1)

Hoxworth (1991) later emphasizes a key consideration that "impact fees are not taxes and, by definition, must benefit those assessed" (p. 20). In a challenge to its impact fees, the Village of Rochester, Illinois replied that "the (impact) fee is not a tax because it is fundamentally user-based, as opposed to a flat levy" (Townsend, 1996, p. 13).

In contrast to impact fees, exactions are "developer-funded, in-kind contributions of land, facilities, or services that are demanded as a condition of development approval" (Tischler, 1999, p. 13). Exactions are usually negotiated "between developers and public officials on an ad hoc, case-by-case basis, to offset the costs of necessary public facilities," while impact fees are "monies collected formally through a set schedule, or formula, spelled out in a local ordinance" (Carlisle & Valente, 1988, p. 2). The advantage of exactions is that they represent a "voluntary" contract which can be tailored to the specific needs of the developer or government authority and become a mutual legal obligation. A disadvantage is that they may not bear a reasonable relationship to the capital costs created by development or to the benefits received by residents. The advantage of impact fees is that they are contained in local ordinances and provide definite, fixed formulas for setting fees equally to all properties within a given area, allowing developers to factor the fees into their decisions to buy land and begin the development process. The fees are proportionate to the benefit received from specified capital improvements to be made. Finally, impact fees may be chosen over exactions when a community favors no growth or slow growth and local officials decide not to negotiate with developers (Carlisle &

Valente) (Hoxworth, 1991). Even so, developers are more likely to accept impact fees with a stronger market (Tischler).

Potential difficulties with exactions were recently highlighted in Loudoun County, Virginia, which neighbors Frederick County, Maryland, to the south. Proffers for fire and rescue services, a form of exaction, were negotiated with developers on a case-by-case basis and resulted in differing fees depending on the agreement the County reached with a particular developer. Property owners did not like the inequities among developments, and the volunteer fire companies did not like the controversy the fees generated regarding fire and rescue funding (Lenhart, 1999).

There are two key elements to impact fees. First, they must be reasonable. Behrens and Georges (1978) state that service fees, such as impact fees, "must be reasonably related to the cost of the public services rendered" (p. 211). More specifically, Tischler (1999) states that impact fees imposed must meet the "substantial benefit" and "rational nexus" tests that "require a reasonable relationship between the amount of the fee and the actual cost of capital facilities needed to accommodate new development" (p. 13). Second, impact fees must be proportionate. Nicholas (1988) states that "the standard to which an impact fee will be held is that the fee not exceed a proportionate share of the costs that local government will incur to accommodate new development" (p. 13).

The implicit reasonableness of impact fees has been upheld by the courts. "In *Contractors & Builders Association v. City of Dunedin* (1976), for example, the Supreme Court of Florida acknowledged the reasonableness of an impact fee imposed on new users of a water and sewerage system to defray the cost of expanding the facilities" (Tiburzi, 1988, p. 513). The standard for the

reasonableness of an impact fee formula was established by the Supreme Court of Wisconsin in *Jordan v. Village of Menomonee Falls* (1966), which developed a two-part "rational nexus" test.

> The court held that (1) there must be a 'reasonable connection' between the need for the additional facilities financed by the impact fees and the growth generated by the new subdivision that will pay them; and (2) the impact fee proceeds must be expended for the 'substantial benefit' of the new subdivision." (Tiburzi, 1988, p. 514)

More recently and locally in *Howard County v. JJM, Inc.* (1984), the Court of Appeals of Maryland applied a standard similar to the one applied in *Jordan.* In *Banberry Development Corporation v. South Jordan City* (1981), the Supreme Court of Utah identified seven factors to be considered in evaluating the reasonableness of an impact fee formula and in establishing a proportionate share of capital costs to be borne by new development. A summary of key court cases involving impact fees may be found in Table 1.

The most recent national survey of fire impact fees was conducted by Downing et al. (1985). "The purposes for which the fire impact fees are levied appear to be primarily, but not exclusively, to provide facilities which are decentralized or neighborhood-oriented in contrast to central facilities" (Downing et al., p. 8). California was found to be the state using them most commonly, followed by Florida.

Of the jurisdictions using fire impact fees, the survey indicated that virtually all development types paid the fees, that the fees were assessed at the issuance of a building permit, that the proceeds were required to be placed in a restricted fund, and that the proceeds could be spent for any type of fire system capital expenditure (land, station, apparatus). Most fees charged the cost of an explicit level of

service, had an inflation adjustment mechanism built-in, were nearly $200 for an average single-family residence, and were spent on neighborhood fire facilities. Additionally, negotiable fees were the least preferred form of levy, most fees recouped the cost of previously constructed capacity where facilities already exist to serve the development, non-fee revenues were not used to upgrade service capacity in older, pre-fee neighborhoods, and impact fees were used solely for capital expansion while taxes were used for operating costs. For a typical home of 1,500 sq ft with three bedrooms and two baths, the survey reported fees from a low of $50 per dwelling unit to a high of $621 (Downing et al., 1985).

With the implementation of impact fees, standards are crucial. "The determination of physical quantities of needed capital facilities requires, in turn, a standard for each service or facility" (Nicholas, 1988, p. 9). A public facility standard represents the desired level of use of a given facility, while a service standard represents the desired level of a particular service to be provided.

Carlisle and Valente (1988) state that "standards must be established against which to measure the adequacy of existing facilities" (p. 7). Other than for binding legal and engineering standards, "standards should reflect a community's consensus as to what are desirable levels of use for a given type of facility, and what are desirable service delivery standards" (Carlisle & Valente, p. 7). For example, a fire protection standard might include siting requirements for fire stations to ensure that all structures can be reached withing a given response time. "The standards used in determining need are best established within the comprehensive plan," which identifies "the planned growth of the community and the need for capital facilities to support that growth" (Nicholas, 1988, p. 9).

A capital improvements program (CIP) is typically based on the adopted comprehensive plan and is important in determining the benefit for impact fees. "If no improvements are planned within a

'reasonable' distance, it would appear that no impact fees should be collected from developments outside of that 'reasonable' distance" (Nicholas, 1988, p. 20).

The need for capital facilities may be quantified in determining impact fees. Nicholas (1988) provides a mathematical formula as: Needed improvements = Service Standard x Demand Unit. He defines a demand unit as "a unit associated with a new development that generates the need for improvements in public facilities," such as five acres per 1,000 population for parks (p. 10). The first step toward instituting a system of impact fees is obtaining data to determine demand units and standards of service (Nicholas).

The Downing et al. survey (1985) found that more than 80 percent of the fire impact fees identified nationally "base their fees on the cost of providing services at explicit service levels such as minimum times (or distances) for equipment to respond to an alarm" (p. 9). Most respondents indicated that their service levels were similar to those of the Insurance Services Office (ISO). Related to service standard is service threshold, which relates the need for a fire station to a certain density of development. "The cost of achieving a given response time can be very expensive in sparsely developed territory" (Downing, et al., p. 10). The survey revealed that, while the majority of communities have some sort of entitlement threshold, the specifics for the trigger vary (e.g., population or building densities).

There are three methodologies that can be used to calculate impact fees. The plan-based approach is based on a master plan or facility study that indicates what facilities will be needed over a certain time frame to service projected development. The incremental expansion approach adds capital

items incrementally to meet growth needs based on current level-of-service standards. The buy-in approach involves situations where the local government has already oversized capital facilities from which new growth will benefit (Tischler, 1999).

Finally, Nicholas (1988) states that "impact fees are still in the process of evolving" (p. 22). Legislatures and the courts will continue to address whether impact fees are a reasonable responsibility of developers.

PROCEDURES

The first step in the process was to gather documents on impact fees from the Frederick County, Maryland, Department of Planning and Zoning, which included an interview with its Director. Next, the Deputy Chief of the Maryland Office of Planning was interviewed to provide a state perspective on impact fees. The Director of Planning for Queen Anne's County, Maryland, provided information on his jurisdiction's use of impact fees for fire/rescue capital improvements.

Impact fee ordinances were reviewed from various jurisdictions, including Frederick County, Washington County, and Queen Anne's County in Maryland and the City of Alpharetta in Georgia. Frederick County's comprehensive plan and demographic data were reviewed, and the status of proposed fire/rescue stations in Frederick County was investigated.

The first step in actually determining the fire/rescue impact fee for new stations was to project the number of new residential and nonresidential occupancies to be served by the new stations. Using demographic and development data from the Frederick County Department of Planning and Zoning, the major residential developments to be served by the new fire/rescue stations were grouped by service area. The difference between the units approved and permits issued provided the number of units yet to

be built in each response area.

Next, the total replacement costs for the County's fire/rescue vehicles and stations were calculated based on the replacement cost values assigned by the County's insurer. Fire/rescue levels of service were then determined to provide a cost per demand unit. For residential occupancies, the total replacement cost was divided by demand units (the County's population) multiplied by the proportionate share of calls. For nonresidential occupancies, the total replacement cost was divided by demand units (vehicle trips) multiplied by the proportionate share of calls.

The maximum supportable development impact fee was then calculated based on the data. For residential occupancies, the average persons per household obtained from the Frederick County Department of Planning and Zoning was multiplied by the total cost per demand unit. For nonresidential occupancies, the weekday vehicle trip ends per 1,000 sq ft, obtained from *Trip Generation* (Institute of Transportation Engineers [ITE], 1997), was first multiplied by the trip adjustment factors from ITE (if applicable), and then multiplied by the total cost per demand unit to determine the maximum supportable fee per 1,000 sq ft.

The amount of fire/rescue impact fee revenue to be generated was then calculated by multiplying the fee for each occupancy by the number of units approved, but not built. Finally, revenue was compared with the fire/rescue capital improvements program to determine the level of funding impact fees might provide for new stations and vehicles.

There were some limitations with this process. Demographic and development data by occupancy was only provided for major residential developments of approximately 50 dwellings or more. Therefore, the number of approved residential occupancies was likely under represented. For

the fire/rescue levels of service, the proportionate share was based on an estimate of the Frederick County Emergency Communications Center and not on actual data which was not readily available. The figure used for Frederick County vehicle trips (demand units) for nonresidential occupancies was based on a projection for average weekday vehicle trips in 1998 contained in the *Development Impact Fee Study and Ordinance* (1992) prepared for Frederick County by Tischler and Associates.

For revenue generated from the fire/rescue impact fee, the figure for approved units represents those for which a permit has not been issued. However, the number of permits issued for major residential development was not provided based on type of occupancy. Therefore, the number of units approved, but not issued a permit, was projected proportionately to the total number of units approved for each type of occupancy.

For the fire/rescue capital improvements program (CIP), the only project actually in the County's approved CIP was the South Frederick (Westview) Station. The figures for the South Frederick Station vehicles and for the other stations and their vehicles were projections based on the *Frederick County Comprehensive Plan* (1998) and plans at the Department of Fire/Rescue Services level.

Definitions

Rational Nexus - In regard to impact fees, refers to a reasonable connection between the source of funding and the use of funding for capital facilities.

Weekday Vehicle Trip End - In the calculation of demand units, refers to a vehicle either entering or exiting a development during the week.

RESULTS

1. How are impact fees currently used in Frederick County and beyond?

As a county with a county commissioner form of government, Frederick County requested approval and was authorized, with the passage of Maryland Senate Bill No. 477, to impose impact fees, effective January 1, 1991 (Tiburzi, 1990). Subsequently, Frederick County approved and adopted on May 4, 1993, *Ordinance No. 93-10-074*, an ordinance establishing development impact fees, which became effective July 1, 1993. The Ordinance states, in part:

> By virtue of Article 25, Section 9J, Annotated Code of Maryland, the Board of County Commissioners of Frederick County has been authorized to fix, impose and collect development impact fees to finance, in whole or in part, the capital costs of additional or expanded public works, improvements, and facilities which are necessary to accommodate new construction or development."

The Ordinance was based on a 1992 report entitled *Development Impact Fee Study and Ordinance* prepared for Frederick County by Tischler and Associates. The study included impact fees for schools, parks, libraries, and roads and bridges. However, fire facilities were included in neither the study nor the ordinance.

The ordinance adopted by Frederick County only included public schools. The impact fees adopted for public schools were $2,000 for single family detached, $1,715 for single family attached (includes townhouses and duplex units), $565 for condominium units, $515 for rental apartments, and $835 for mobile homes or other residential occupancies. As of July 1, 1999, the Board of County Commissioners raised the fees to $4,120 for single family detached, $2,670 for single family attached,

$690 for multifamily dwellings, and $850 for mobile homes.

The most recent state-wide survey of impact fees in Maryland was published in a report entitled *Impact Fees in Maryland* (Maryland Office of Planning, 1989). The survey found that all impact fee ordinances contained certain elements including: authority, purpose, types of uses to be assessed, formula, schedule, collection, credits, refunds, and review. Larry Duket (personal communication, May 5, 1999), deputy chief of the Maryland Office of Planning, reported that only one jurisdiction in Maryland, Queen Anne's County, has adopted impact fees for fire facilities in a specific, high growth section of the County, including Queenstown, Gransonville, and Kent Island just east of the Chesapeake Bay Bridge. The South County Emergency Service fees are $55 for each residential occupancy, regardless of type, and $0.15 per sq ft of gross floor area for commercial, industrial, and institutional occupancies. Steve Ziegler (personal communication, May 10, 1999), planning director for Queen Anne's County, related difficulty in administering the ordinance for fire facilities. Fire capital needs are not included in the County's CIP, and volunteer companies request reimbursement from impact fees as they make capital purchases. Ziegler said that fire service capital expenses need to be quantified and related to new growth, and under the present system, it is hard to justify the expenses as they are not backed up operationally. He added that the County is considering ending the emergency services impact fee.

Washington County, Maryland, adjacent to Frederick County to the west, had an *Impact Fees Study* (1998) prepared by Tischler & Associates. The Study included impact fees for elementary school construction, public works equipment, and public safety (not including fire/rescue). An incremental expansion methodology, which documents current level of service for each type of facility in

both quantitative and qualitative measures, was used to determine impact fees for public safety facilities and capital equipment needed to accommodate new development. Residential impact fees were calculated on a per capita basis and then converted to an appropriate amount by type of housing unit based on household size. Nonresidential development fees were based on nonresidential vehicle trips. Local calls for service data for 1997 were analyzed to determine residential and nonresidential proportionate share factors for Sheriff protection. Residential locations had a proportionate share factor of 70 percent, while nonresidential land uses accounted for 30 percent of the demand for Sheriff protection. To determine the level of service for Sheriff patrol vehicles for residential development, the total replacement cost was multiplied times the residential proportionate share factor of 70 percent and then divided by the County population estimate. For the nonresidential standard, the total replacement cost was multiplied times the factor of 30 percent and then divided by the nonresidential vehicle trips. A similar process was used for determining the Sheriff's Patrol Headquarters level of service based on the total cost of the facility. The study determined that the maximum supportable development fee for public safety was $150 for single family detached, $152 for townhouses, $107 for multifamily, and $137 for mobile homes and other. Nonresidential fees per 1,000 sq ft ranged from a high of $55 for a commercial shopping center of 25,000 sq ft or less to a low of $4 for manufacturing (Tischler, 1998).

The City of Alpharetta, Georgia, adopted a *Public Safety Fee Impact Fee Ordinance* on November 2, 1998, based on a report entitled *Public Safety Impact Fees* (1998), which was prepared for the City by Nicholas. The Ordinance amended the *Fire Protection Impact Fee Ordinance*, adopted on March 30, 1992, to include both fire prevention and police protection under the collective category of public safety. The report stated that the goal of the fire protection impact fee

is to prevent a deterioration of the fire protection level of service as defined by the Insurance Services Organization (ISO), which for the City was an ISO rating of three (with one being the best and 10 being the worst) and to improve to a lower fire code rating in the future. In other words, the City determined that certain capital improvements were necessary for fire protection in order not to experience a decline in the level of service as the community grows.

The Ordinance adopted the following public safety impact fee schedule: $264 for single family, $203 for multifamily, a high of $251 per sq ft for less than 25,000 sq ft of retail or commercial to a low of $220 per sq ft for more than 125,000 sq ft, $204 per room for hotels and motels, $272 per 1,000 sq ft for manufacturing, $285 per 1,000 sq ft for warehousing, and a high of $204 per 1,000 sq ft for general office less than 100,000 sq ft to a low of $192 per 1,000 sq ft for general office more than 199,000 sq ft. The funds collected are used for public safety system improvements, but not for periodic or routine maintenance (Nicholas, 1998).

2. What are the needs and plans for fire and rescue facilities in Frederick County?

The *Frederick County Comprehensive Plan* (1998) includes a section on fire and rescue facilities. The County has 27 fire and rescue stations of which 12 provide fire and ambulance services, 10 provide fire services only, and four provide ambulance services only. Other facilities include an advanced life support headquarters built in 1994, a Public Safety Training Facility built in 1993, and an Emergency Communications Center built in 1982. The newest additional fire station is located in Green Valley and was built in 1985. In 1989, a change to the *Frederick County Code* allowed the County to create special fire/rescue tax districts to fund capital improvements and personnel. Since the change, the tax districts have funded apparatus purchases and isolated capital improvements to existing stations, but

no new stations. The *Comprehensive Plan* states that the service areas of new fire and rescue facilities should be based on the following factors: existing station locations, land use occupancy, population density, building intensity and heights, quality of structures, and general service areas. Under general service areas, the *Comprehensive Plan* outlines the following guidelines for distances from particular land-use occupancies when evaluating the adequacy of stations for existing and planned growth:

- 1-1/2 - 2 mi for high value commercial and industrial development
- 2-1/2 mi for urban residential uses
- 3-4 mi for low density or suburban land uses
- 5 mi for rural areas (i.e., outside of designated growth areas)

The *Comprehensive Plan* identifies short term (years 1997-2002) new and additional fire and rescue station needs as follows in order of priority:

- South Frederick on New Design Road near Corporate Drive (land was dedicated as part of the Westview development review process)
- East Frederick to serve the areas around the Spring Ridge and Linganore Planned Unit Developments (a site in Spring Ridge has been dedicated, and the Linganore site will be dedicated within the next 2-3 years, both as part of the development review process)
- North Frederick on or near Opossumtown Pike near the City of Frederick boundary (land will be dedicated within three years as part of the Garst development review process)
- Point of Rocks (land is in the process of being dedicated to the Carroll Manor Volunteer Fire Company)
- Brunswick Volunteer Fire Company has purchased land to relocate its station to the vicinity of

Maryland Route 464 and Souder Road.

Long-term needs (beyond the year 2002) for new and additional fire and rescue stations are identified as:

- Lake Linganore in the vicinity of Boyers Mill Road and Eaglehead Drive
- South Frederick on Ballenger Creek Pike north of Crestwood Boulevard (land was dedicated as part of the Farmbrook development review process)
- Lewistown District Volunteer Fire Company to add ambulance service
- Yellow Springs
- Buckeystown

The *Comprehensive Plan* recommendations are similar to those made in the *Frederick County Fire/Rescue Task Force Report* (1988) and a *Long-Range Plan* (1983) prepared by the Frederick County Volunteer Fire and Rescue Association.

A recent draft report of the Fire and Rescue Task Force Review Committee may result in some recommendations to the Board of County Commissioners to modify the fire and rescue facilities section of the *Comprehensive Plan*. A new fire and rescue station for the New Market District Volunteer Fire and Rescue Company to replace its existing facility would be the second priority for short-term facility needs. The Company has recently requested County funding for the replacement of its existing station which is inadequate and in disrepair. A new Middletown fire station would be added to the short-term facility needs after the Brunswick station. It is expected that the Middletown station would be funded without County monies. Ambulance service for the Lewistown station would be moved from long-term to short-term after the Middletown station replacement. Myersville Volunteer Fire Company also has

plans to replace its station in the near future. Existing and proposed fire/rescue stations are shown in the Appendix.

3. How might impact fees be applied to fund the construction of new fire and rescue stations in Frederick County?

Through the development review process, three fire/rescue station sites have been deeded to the County during the past 15 years, but no new stations have been built on the sites. Two sites (Farmbrook and Westview) are located south of the City of Frederick, and one site (Spring Ridge) is located east of the City of Frederick. A Point of Rocks site is in the process of being deeded to the Carroll Manor Volunteer Fire Company. A second east Frederick site (Linganore) is expected to be deeded to the County in two to three years, and a north Frederick site is expected to be deeded to the County in three years (see Table 2).

A review of major residential development to be served by stations on the new sites indicates substantial population growth potential. The Westview site south of Frederick will be the location of the first fire/rescue station built by the County, and construction is expected to begin next year. Of the 3,736 residential units approved, 44 percent have not been issued permits and remain to be built. Nearly half (46 percent) of the units approved are townhouses, followed by multifamily dwellings (30 percent), and single family dwellings (24 percent).

The potential growth to the east of Frederick is even greater and will be served from the Spring Ridge site. Of the 6,332 residential units approved, more than half (54 percent) remain to be built. The majority (68 percent) are single family dwellings, followed by townhouses (24 percent), and multifamily dwellings (7 percent). The north Frederick (Garst) site will serve 2,584 approved residential units, of

which 69 percent remain to be built. About half the approved units are single family dwellings (52 percent), townhouses account for 43 percent, and multifamily comprise only 5 percent. The area to be served by the Point of Rocks station has 580 approved residential units, none of which has been built. The breakdown of units includes 51 percent single family, 29 percent townhouses, and 21 percent multifamily dwellings (see Table 3).

An analysis of fire/rescue replacement costs totals about $23 million for the County's fire/rescue vehicles and nearly $16 million for the County's fire/rescue stations, for a total replacement cost of almost $39 million (see Table 4). The figures represent the vehicle and replacement costs assigned by the County's insurer.

For levels of service for residential occupancies, the total County fire/rescue replacement costs were divided by the County's population (demand units), and then multiplied by the proportionate share of service demand (70 percent). For levels of service for nonresidential occupancies, the total County fire/rescue replacement costs were divided by vehicle trips, and then multiplied by the proportionate share of service demand (30 percent). The cost per demand unit for vehicle replacement is $82.39 for residential and $12.51 for nonresidential, for a total of $94.90. The cost per demand unit for station replacement is $56.74 for residential and $8.62 for nonresidential, for a total of $65.36. For vehicle and station replacement combined, the total residential cost per demand unit is $139.13, and the total nonresidential cost per demand unit is $21.13 (see Table 5).

The computation of the fire/rescue impact fee is shown in Table 6. The maximum supportable residential development fee ranges from a high of $417.39 for single family detached to a low of $272.69 for a condominium. The maximum supportable nonresidential development fee ranges from a

high of $519.81 per 1,000 sq ft for a commercial/shopping center of 25,000 sq ft or less to a low of $40.36 for a manufacturing facility.

The total revenue to be generated from the fire/rescue impact fee is shown in Table 7, and the fire/rescue capital improvements program is shown in Table 8. For the South Frederick (Westview) station, it is estimated that more than $653,000 could be raised from impact fees on new construction to be served by the new station. This amount represents about 23 percent of the projected cost of $2.8 million for the station and vehicles. For the East Frederick (Spring Ridge) station, about $1.4 million could be raised from impact fees, which would represent about 58 percent of the $2.4 million cost for the station and vehicles shown in Table 8. Impact fees for the North Frederick (Garst) station could raise $677,000, which would represent about 26 percent of the $2.6 million cost of the new station and vehicles. Finally, impact fees for the Point of Rocks station could generate about $219,000 toward the $2.1 million cost of the new station. The total amount that could be raised by impact fees for all four new stations is just over $3.2 million (see Table 9 for a comparison).

DISCUSSION

In gathering the data for this project, I was impressed by the number of residential occupancies approved, but not built. In the area to be served by the South Frederick (Westview) Station, 44 percent (1,638) of the residential units are approved, but not built. In the area to be served by the East Frederick (Spring Ridge) Station, 54 percent (3,438) of the residential units are approved, but not built. In the area to be served by the North Frederick (Garst) Station, 69 percent (1,771) of the residential units are approved, but not built. In the area to be served by the Point of Rocks Station, none of the 580 residential units has been built. Moreover, this data does not include additional residential units that

will be approved in the future. Other than a downturn in the economy, there seems to be nothing that will stop the rapid growth of the County and, in turn, lessen the increasing demands on fire/rescue services.

While the County has seen the need for future fire/rescue station sites and has acquired them through the development review process, the County has not followed through with constructing stations to serve adequately the new developments. During the past 15 years, the County has been deeded three fire/rescue station sites through the development review process, and two more sites are expected to be deeded to the County within the next three years. Yet, the County is not even expected to begin building its first station on one of these deeded sites until next year. As a result of growth and congestion south and east of Frederick, response times to some new, larger residential communities well exceed five minutes and/or five miles.

Impact fees represent a viable and prudent means to fund fire/rescue stations in Frederick County. Since no fire/rescue stations have yet been built by the County, no bonds have been used to finance construction of the stations, and the time is right to consider the most appropriate type of funding to be used. The County is currently poised to fund its first new station from the Frederick Fire Tax District, which would spread the cost over all property owners within the Frederick region. Also, the County is considering the adoption next year of a County-wide fire/rescue tax to replace its system of fire tax districts. If impact fees are adopted now for the construction of fire/rescue stations, then the tax rates could be adjusted down and the burden for funding new stations shifted to new development. In fact, Nicholas (1988) states that impact fees are particularly appropriate for areas of rapid growth. Moreover, impact fees may be viewed as "a way to compensate for the negative influence that urban

sprawl has on developing communities" (Building Official and Code Administrator, 1992, p. 19).

The impact fees proposed in this paper seem reasonable in comparison with other jurisdictions. Fifteen years ago, the national fire impact fee survey by Downing et al. (1985) revealed that the average impact fee for a single-family dwelling was $200, a little less than half Frederick County's proposed rate. Last year, Tischler's report for Washington County, Maryland, proposed a single-family rate of $150 just for the Sheriff's Office, which has significantly less capital costs than fire/rescue services. However, Tiburzi (1988) emphasizes that "perhaps the most compelling evidence to support the reasonableness of an impact fee would be a rate study, especially one prepared by an independent expert before the charge is adopted" (p. 515). The Board of County Commissioners of Frederick County will be contracting this fall for such a rate study.

While the need for new fire/rescue stations is documented in the *Frederick County Comprehensive Plan* (1988), which provides the substantiation for impact fees that Nicholas (1988) states is crucial for future capital improvements, an effort needs to be made to take a closer look at response standards. Presently, the County only monitors responses from time of dispatch to departure from station. Standards need to be adopted for total response time, including the time to depart the station and to arrive at the scene. This would allow the County to move from what Tischler (1988) calls a "plan-based methodology" to an "incremental expansion methodology." In other words, rather than just making capital improvements as cited in the *Comprehensive Plan*, capital improvements would be made to maintain or improve adopted standards. The importance of adopting levels of service standards is seen with the example of Queen Anne's County, Maryland, where the Planning Director indicates that the impact fees for fire/rescue capital improvements may be in jeopardy due to the lack of

standards. Since Queen Anne's County is the only county in Maryland using impact fees for fire/rescue capital improvements, Frederick County has the opportunity to learn from Queen Anne County's difficulties with impact fees and become a leader in the state with the adoption of impact fees for fire/rescue capital improvements based on standards.

Probably the most significant growth area not included in this paper is the Urbana region of Frederick County, which has a planned unit development of 3,421 approved units with no permits yet issued and which probably will not require an additional station. While this development will be served by an existing centrally located fire/rescue station, some capital improvements may be required in the future to maintain levels of service for such a dramatic increase in population. The same may be said, to a lesser degree, of other stations throughout the County. Given the capital improvement needs that may become necessary at existing stations to maintain service standards as the population grows, the County may want to consider adopting fire/rescue impact fees County-wide, rather than by service area for new stations. This action would enable the County, provided service standards are adopted and monitored, to make capital improvements throughout the County funded by impact fees. It would also give the County more flexibility to deal with longer term capital improvement needs, such as a second fire/rescue station located south of Frederick.

Finally, it may be possible to reduce the cost of the capital improvement projects by reducing the number of vehicles. For instance, the South Frederick (Westview) Station budget includes the cost of a new pumper and aerial truck, which may not be needed if existing vehicles could be reassigned. The decision could be made to continue to fund vehicles with fire tax revenue, while funding new

stations with impact fees. Even though the impact fee rates, as proposed in this paper, will be insufficient to fund the entire cost of the new stations, Tiburzi (1988) notes that a governmental body cannot reasonably impose on new residents through impact fees the entire cost of new facilities unless only they will benefit from the facilities, which would not be the case in Frederick County. Therefore, an additional funding source, such as the existing fire tax, would need to be identified to make up the difference.

RECOMMENDATIONS

- Adopt impact fees to defray the cost of constructing additional fire/rescue stations and providing the necessary apparatus.

- Consider the possibility of a temporary fire/rescue station south of Frederick to reduce response times until the new station opens within the next two years.

- Expedite construction of the South Frederick (Westview) Station.

- Include funding in next year's Capital Improvements Program (CIP) for the East Frederick (Spring Ridge) Station since the need is documented and the land has already been dedicated.

- Add the North Frederick (Garst) Station to the CIP to coincide with the land dedication that is expected to occur within three years.

- Develop a method to monitor all aspects of response times, including the time from departing the station to arriving on scene.

- Develop an incremental methodology for impact fees for future years to assure minimum levels of service are maintained.

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Table 1

Summary of Court Cases involving Impact Fees

Banberry Development Corporation v. South Jordan City (1981)

The Supreme Court of Utah identified seven factors to be considered in evaluating the reasonableness of an impact fee formula and in establishing a proportionate share of capital costs to be borne by new development. The case sets a standard for a demanding cost-accounting approach.

City of Fayetteville v. IBI, Inc. (1983)

A park impact fee ordinance was invalidated because the City did not have a sufficiently definite plan for parks improvements, and the city made no provision for refund of the payment in case the parks were not developed as expected.

Contractors & Builders Association v. City of Dunedin (1976)

The Supreme Court of Florida acknowledged the reasonableness of an impact fee imposed on users of a water and sewerage system to defray the cost of expanding the facilities.

Eastern Diversified Properties, Inc. v. Montgomery County, Maryland (1990)

The Court of Appeals struck down Montgomery County's development impact fee program as an invalid "tax" without legislative authority.

Hollywood, Inc. v. Broward County

A Florida court affirmed that a development received a substantial benefit from a park impact fee as long as the park funded by the fee was within 15 miles of the development. Broward County had a study that provided a rationale for distance indicating that 15 miles was not an arbitrary number.

Home Builders and Contractors Association of Palm Beach v. Palm Beach County (1983)

Road impact fees were upheld as valid police power regulations under county home rule powers. The county ordinance established a formula to calculate a fair share of the cost of expanding new roads; fees collected are to be spent within particular geographic zones. The court applied a "rational nexus test," under which it evaluates impact fees in light of whether new development creates a need for new road construction, whether the fee charged is proportionate to the needs created, and whether the fees are used to reasonably benefit the feepayer.

Howard County v. JJM, Inc. (1984)

The Court of Appeals of Maryland applied a standard similar to the one established in *Jordan.*

Jordan v. Village of Menomonee Falls (1966)

The Supreme Court of Wisconsin developed a two-part "rational nexus" test for judging the reasonableness of impact fees. First, there must be a "reasonable connection" between the need for the additional facilities financed by the impact fees and the growth generated by the new subdivision that will pay them. Second, the impact fee proceeds must be expended for the "substantial benefit" of the new subdivision. The case represents the more modern trend of state review.

Nolan v. California Coastal Commission (1987)

The U.S. Supreme Court held that certain land use regulations will, if challenged, be held to a strict standard of review to determine whether they cause a taking for which the fifth amendment requires compensation. This standard could be cited by litigants challenging impact fees as causing an unconstitutional taking. The decision appears to require that all dedications or exactions imposed must relate to the development itself and provide some benefit to that development. The case results in a

federal constitutional requirement for a close nexus between the fee and the purpose it serves.

Northampton Corp. v. Washington Suburban Sanitary Commission (1976)

The Maryland Court of Appeals rejected an equal protection challenge to a special connection charge.

Pioneer Trust and Savings Bank v. Village of Mount Prospect (1961)

The Illinois Supreme court established the "specifically and uniquely attributable" test for the review of subdivision exactions. The test is most restrictive and generally requires that facilities be to the exclusive benefit of the subdivision.

Village of Royal Palm Beach v. Home Builders and Contractors Association

The court invalidated an impact fee as vague and ambiguous in that there were no specifics in the ordinance as to where and when the monies collected are to be expended. There was no requirement in the ordinance restricting the use of the money to services to be provided to those areas and persons from whom the money was exacted.

Table 2

Status of Sites for Future Fire/Rescue Stations

Location	Size	Status
South Frederick (Farmbrook) East side of Ballenger Creek Pike between Interstate 70 and Crestwood Boulevard	2 acres	Deeded to County
South Frederick (Westview) East side of New Design Road between Arbor Drive and Corporate Drive	3.2 acres	Deeded to County
East Frederick (Spring Ridge) East side of Spring Ridge Parkway between Route 144 and Ridgefield Drive	1.94 acres	Deeded to County
Point of Rocks On Route 464 (future) east of Ballenger Creek Pike	2 acres	Deed in process
East Frederick (Linganore) South Side of Gas House Pike, east of Boyers Mill Road	Pending	To be deeded in 2 to 3 years

North Frederick (Garst)	Pending	To be deeded in 3 years
On Christophers Crossing (future) west of Opossumtown Pike		

Table 3

Major Residential Development to be served by New Stations

	Permits Issued	Units Approved			
		Total	Single-family	Town-house	Multi-family
South Frederick (Westview) Station					
Ballenger Crossing PUD	246	473	126	347	0
Crestwood Village	982	1040	439	305	296
Hannover	250	676	66	237	373
Stonebridge	161	191	0	191	0
Stuart Mechanic	431	431	70	157	204
Wellington Trace	2	800	213	347	240
Westview Park	26	125	0	125	0
Totals	2098	3736	914	1709	1113
	56%	100%	24%	46%	30%
East Frederick (Spring Ridge) Station					
Eaglehead PUD					
Aspen	28	222	222	0	0
Aspen North	3	117	117	0	0
Audobon	216	285	123	83	0
Balmoral	50	78	78	0	0
Isles of Balmoral	0	159	159	0	0
Coldstream	208	235	197	0	38
Meadows	289	396	396	0	0
Nightingale	3	103	103	0	0

Pinehurst	439	688	622	66	0
Summerfield	325	326	219	107	0
Westwinds	111	451	339	112	0
Woodridge	3	1123	413	560	150
Fairways at Holly Hills	121	226	226	0	0
Preston	2	99	99	0	0
River Oaks	50	90	90	0	0
Spring Ridge PUD	1042	1663	827	571	265
Winding Ridge	4	71	71	0	0
Totals	2894	6332	4301	1499	453
	46%	100%	68%	24%	7%
North Frederick (Garst) Station					
Cloverhill III	289	328	328	0	0
Garst PND	0	671	440	231	0
North Crossing	300	496	136	360	0
Valley Ranch PND	0	686	246	310	130
Willowbrook	224	403	181	222	0
Totals	813	2584	1331	1123	130
	31%	100%	52%	43%	5%
Point of Rocks Station					
Canal Run PUD	0	580	293	167	120
Totals	0	580	293	167	120
	0%	100%	51%	29%	21%
Grand Totals	5805	13232	6839	4498	1816
	44%	100%	52%	34%	14%

Table 4

Fire/Rescue Replacement Costs

Station	Vehicles	Buildings	Totals
1	$1,591,379	$948,809	$2,540,188
2	$1,106,865	$890,925	$1,997,790
3	$1,383,877	$1,120,245	$2,504,122
4	$1,407,668	$349,481	$1,757,149
5	$1,106,440	$792,120	$1,898,560
6	$1,322,336	$554,163	$1,876,499
7	$834,958	$428,761	$1,263,719
8	$545,792	$342,871	$888,663
9	$820,000	$679,694	$1,499,694
10	$1,152,000	$372,648	$1,524,648
11	$890,000	$1,476,185	$2,366,185
12	$452,000	$475,655	$927,655
13	$758,400	$843,028	$1,601,428
14	$1,324,635	$328,059	$1,652,694
15	$810,034	$384,406	$1,194,440
16	$914,000	$543,491	$1,457,491
17	$955,104	$600,426	$1,555,530
18	$493,400	$271,160	$764,560
19	$438,000	$247,795	$685,795
20	$772,681	$300,000	$1,072,681

21	$483,000	$282,817	$765,817
22	$675,000	$1,014,260	$1,689,260
23	$851,193	$841,906	$1,693,099
24	$481,000	$255,668	$736,668
25	$561,635	$254,096	$815,731
26	$259,628	$319,531	$579,159
30	$278,900	$387,346	$666,246
ALS	$176,895	$550,750	$727,645
HAZMAT	$75,000	N/A	$75,000
ATR	$100,000	N/A	$100,000
Totals	$23,021,820	$15,856,296	$38,878,116

Table 5

Fire/Rescue Levels of Service

Vehicles Replacement Cost		$23,021,820	
Occupancy	Proportionate Share	Demand Units	Cost per Demand Unit
Residential	70 %	195,603 persons	$82.39
Nonresidential 30%		552,100 vehicle trips	$12.51
Subtotal			$94.90
Stations Replacement Cost		$15,856,296	
Occupancy	Proportionate Share	Demand Units	Cost per Demand Unit
Residential	70%	195,603 persons	$56.74
Nonresidential 30%		552,100 vehicle trips	$ 8.62
Subtotal			$65.36
Grand Total			$160.26
Total Residential Cost per Demand Unit for Vehicles and Stations			$139.13
Total Nonresidential Cost per Demand Unit for Vehicles and Stations			$ 21.13

Note. Vehicle and station replacement costs are based on insurance records from the Frederick County Office of Risk Management. Proportionate share is an estimate provided by the Frederick County Department of Emergency Communications. Persons are based on a July 1999 estimate from the Frederick County Department of Planning. Vehicle trips (nonresidential) are

based on a projection for 1998 from the *Development Impact fee Study & Ordinance* (1992) prepared for Frederick County, Maryland, by Tischler & Associates, Inc.

Table 6

Fire/Rescue Impact Fee

Persons per Household

Single Family Detached	3.00
Single Family Attached	2.76
Condominium	1.96
Rental Apartment	2.01
Mobile Home	2.51

Weekday Vehicle Trip Ends per 1,000 sq ft

Commercial/Shopping Center (25,000 sq ft or less)	111.82
Commercial/Shopping Center (25,001-50,000 sq ft)	87.31
Commercial/Shopping Center (50,001-100,000 sq ft)	68.17
Commercial/Shopping Center (100,001-200,000 sq ft)	53.22
Commercial/Shopping Center (more than 200,000 sq ft)	41.56
Office/Institutional (10,000 sq ft or less)	22.64
Office/Institutional (10,001-25,000 sq ft)	18.31
Office/Institutional (25,001-50,000 sq ft)	15.59
Office/Institutional (50,001-100,000 sq ft)	13.27
Office/Institutional (100,000 sq ft or more)	11.30

Business Park	12.76
Light Industrial	6.97
Warehousing	4.96
Manufacturing	3.82

Trip Adjustment Factors

Commercial/Shopping Center (25,000 sq ft or less)	22%
Commercial/Shopping Center (25,001-50,000 sq ft)	26%
Commercial/Shopping Center (50,001-100,000 sq ft)	29%
Commercial/Shopping Center (100,001-200,000 sq ft)	32%
Commercial/Shopping Center (200,001 sq ft or more)	35%
All other Nonresidential Development	50%

Level of Service	Per Person	Per Trip
Vehicles Cost	$82.39	$12.51
Stations Cost	$56.74	$ 8.62
Total Capital Cost	$139.13	$21.13

Maximum Supportable Development Fee

Residential	Per Housing Unit
Single Family Detached	$417.39

Single Family Attached	$384.00
Condominium	$272.69
Rental Apartment	$279.65
Mobile Home	$349.22

Nonresidential	Per 1,000 sq ft
Commercial/Shopping Center (25,000 sq ft or less)	$519.81
Commercial/Shopping Center (25,001-50,000 sq ft)	$479.66
Commercial/Shopping Center (50,001-100,000 sq ft)	$417.73
Commercial/Shopping Center (100,001-200,000 sq ft)	$359.85
Commercial/Shopping Center (more than 200,000 sq ft)	$307.36
Office/Institutional (10,000 sq ft or less)	$239.19
Office/Institutional (10,001-25,000 sq ft)	$193.45
Office/Institutional (25,001-50,000 sq ft)	$164.71
Office/Institutional (50,001-100,000 sq ft)	$140.20
Office/Institutional (100,000 sq ft or more)	$119.38
Business Park	$134.81
Light Industrial	$ 73.64
Warehousing	$ 52.40
Manufacturing	$ 40.36

Note. Persons per Household based on the *Development and Impact Fee Study and Ordinance*

(1992) prepared for Frederick County by Tischler and Associates. Average weekday vehicle trip ends are from *Trip Generation, 6th Edition* (1997) published by the Institute of Transportation Engineers.

Table 7

Revenue from Fire/Rescue Impact Fee

South Frederick (Westview) Station

Occupancy	Approved Units	Fee	Revenue
Single Family	393	$417.39	$164,034.27
Townhouse	753	$384.00	$289,152.00
Multi-Family	491	$272.69	$133,890.79
Sub-total	1,637		$587,077.06
Retail (000s sq ft)	216	$307.36	$66,389.76
Total			$653,466.82
East Frederick (Spring Ridge) Station			
Single Family	2,338	$417.39	$975,857.82
Townhouse	825	$384.00	$316,800.00
Multi-Family	241	$272.69	$65,718.29
Total	3,404		$1,358,376.11
North Frederick (Garst) Station			
Single Family	921	$417.39	$384,416.19
Townhouse	762	$384.00	$292,608.00
Multi-Family	89	$272.69	$24,269.41
Total	1,772		$701,293.60

Point of Rocks Station

Single Family	293	$417.39	$122,295.27
Townhouse	167	$384.00	$64,128.00
Multi-Family	120	$272.69	$32,722.80
Total	580		$219,146.07
Grand Total (residential	7,393		
Grand Total (retail, 000s sq ft)	216		
Grand Total (revenue)			$3,254,673.60

Table 8

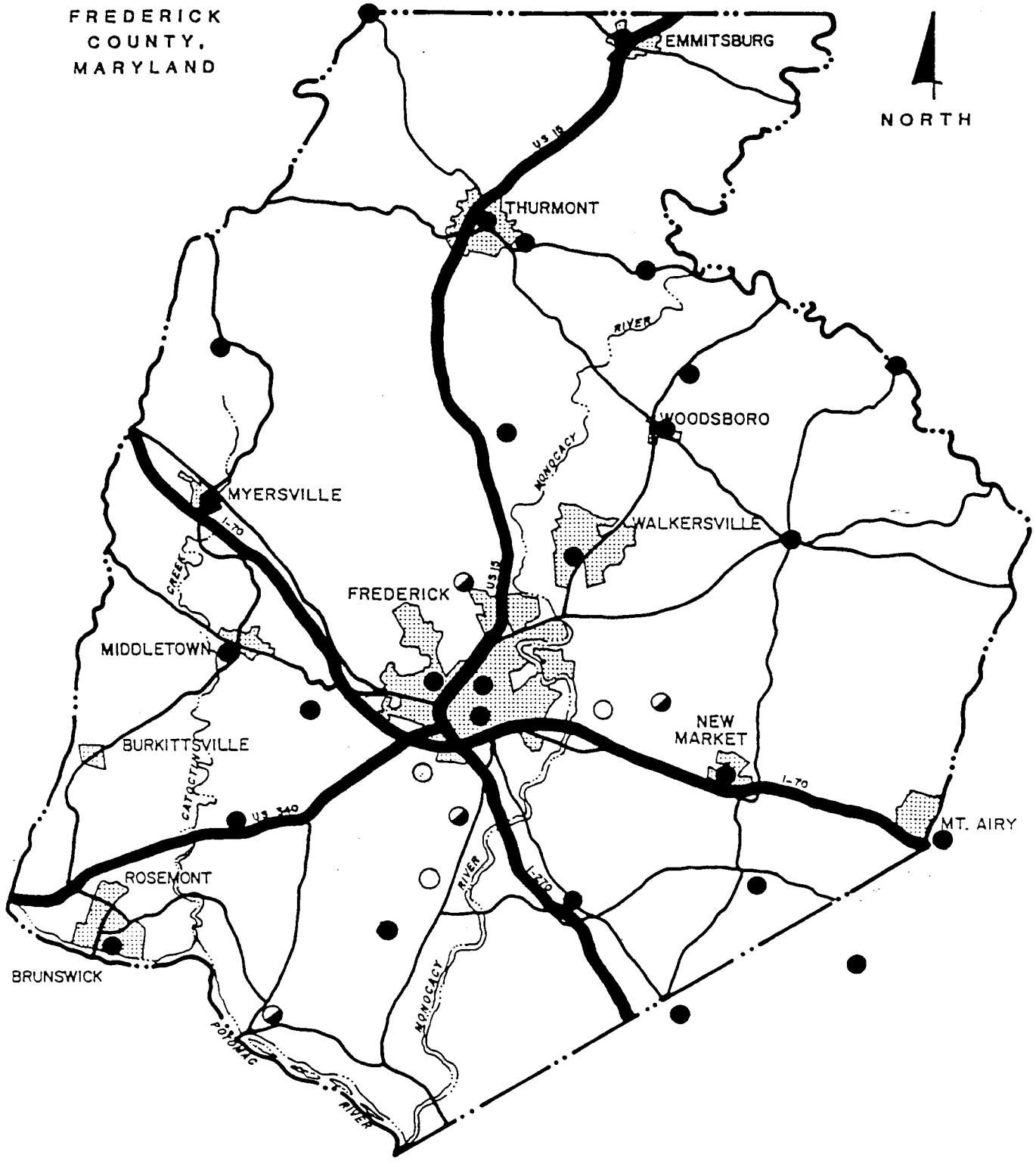
Fire/Rescue Capital Improvements Program (CIP)

	(000s)			
Station Location	FY01	FY02	FY03	Totals
South Frederick (Westview)				
Buildings	$1,726			$1,726
Vehicles	$1,115			$1,115
Sub-Total	$2,841			$2,841
East Frederick (Spring Ridge)				
Building		$1,899		$1,899
Vehicles		$457		$457
Sub-Total		$2,356		$2,356
North Frederick (Garst)				
Building			$2,089	$2,089
Vehicles			$503	$503
Sub-Total			$2,592	$2,592
Point of Rocks				
Building	$1,726			$1,726
Vehicles	$415			$415
Sub-Total	$2,141			$2,141
Total (Buildings)	$3,452	$1,899	$2,089	$7,440
Total (Vehicles)	$1,530	$457	$503	$2,490
Grand Totals	$4,982	$2,356	$2,592	$9,930

Table 9

Comparison of CIP Costs to Impact Fee Revenue

	(000s)			
	CIP Cost	Revenue	Difference	Percent
South Frederick (Westview) Station	$2,841	$653	($2,188)	23%
East Frederick (Spring Ridge) Station	$2,356	$1,358	($998)	58%
North Frederick (Garst) Station	$2,592	$677	($1,915)	26%
Point of Rocks Station	$2,141	$219	($1,922)	10%
Totals	$9,930	$2,907	($7,023)	29%



FIRE STATION LOCATIONS

	Existing	Short Term	Long Range
STATIONS	●	◕	○